



ELECTRICAL CURRENTS

Newsletter from the Office of the Chief Electrical Inspector

Ron Fuller, Chief Electrical Inspector

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● Stakeholder Meetings for 2001

The department is again offering 4 Continuing Education Units (CEU's) for those who attend the meetings and score at least 70% on a take-home examination.

March 21, 2002 1:00-4 PM	OPALCO Office 183 Mt. Baker Road, Eastsound, Orcas	April 17, 2002 7:00-9 PM	Pullman City Hall, Community Center, Pullman
April 16, 2002 7:00-9:00 PM	Community Colleges of Spokane, Institute for Extended Learning 985 S. Elm St., Colville Monumental Room	April 18, 2002 7:00-9 PM	Lair Building Spokane Community College Spokane

● ESB 6630

Engrossed Senate Bill 6630 has now passed in the Senate, 43-0, and the House, 96-1, and is awaiting the Governor's signature. This bill will significantly change the current statute (i.e. RCW) requirements for administrators, trainees, and specialty electricians. The following is a highlight of the major changes. Future articles will go into more detail and the implications the bill will have on rule making.

- Administrators, except Telecommunications, will have three-year renewals and be required to have continuing education.
- A Master Journeyman and Master Specialty Electrician certificate is created.
- Trainees have biennial renewal.
- Residential, Pump & Irrigation, Sign, Limited Energy, Nonresidential Maintenance, a new Restricted Nonresidential Maintenance, and all other future commercial specialties will have a minimum 2-year requirement.
- All other specialties, including a new Appliance Repair Specialty, will have a minimum 1-year requirement with the possibility of being eligible to take the exam and work unsupervised after 90 days or more as set by rule. The first 90 days must be worked under 100% supervision.
- Trade/training school credit will be allowed for specialties.

ESB 6630 will dramatically help our industry. The successful passage of this bill is a result of significant work by the entire electrical industry, business and labor, to reach a resolution that works for the entire electrical industry. Many thanks to everyone who dedicated the last year to working together for our industry.

● Jobsite Safety

Safety is the foremost reason the Electrical Inspection Program exists. The department is committed to meeting Director Gary Moore's goal to reduce injuries at L&I to zero by January 2006. Electrical inspectors are trained to recognize job site safety hazards and avoid them. Sometimes an inspection cannot be completed until the contractor removes a safety hazard. One example, missing guardrails on stairs and landings, presents a fall hazard that might prevent an inspector from completing an inspection. If you would like help in recognizing hazards on your jobsite, you can receive free consultation and education services from a L&I Safety & Health Consultant at 800-4BE-SAFE or their website:

www.lni.wa.gov/wisha/topics/wisha_consultants.htm. HELP US MAKE THE STATE OF WASHINGTON A SAFER PLACE TO WORK AND LIVE.

● Plan Review Process Improvements

In order to reduce review times, Electrical Plan Review is beginning a new pre-review screening process that will reveal any potential (quality control) problems in submitted plans. The new procedures are outlined in an updated Electrical Plan Review Submittal Guide. The new guide has been sent to all firms who submitted 3 or more plans in 2001. The new guide is also available on our web site (address on the footer below) under the **Publications, Forms, & Instructions** (button) link.

The department strongly recommends that designers use the screening process detailed in the submittal guide prior to shipping plans to the department for review. Careful quality control at the designer's office will reduce errors in submitted plans. If the department's screening process reveals multiple or major errors on submitted plans, the plans will be returned to the designer for modification and fees will be charged for the plans examiner's review time. If plans are returned, the plans cannot proceed through the review process and project timelines may be jeopardized. If you have any questions on this new process, feel free to contact Bruce Reynolds, Plan Review Supervisor at (360) 902-5254.

● **Electrical Exams Begin at LaserGrade**

LaserGrade is now administering all of the State's electrical exams by computer in their 17 statewide locations. The testing sites are open Monday through Saturday.

Administrator exam candidates may schedule exams directly with LaserGrade. When the candidate has successfully completed the exam, they provide proof of a passing score to the department along with an application for administrator certification. Electrician exam candidates must first apply to the department and qualify to take an examination. When they receive an approval letter to test from the department, they may schedule their exam with LaserGrade. LaserGrade will need to see the department's approval letter at the exam center prior to allowing the candidate to test. To schedule an exam, contact LaserGrade at www.lasergrade.com or call at 1-800-211-2753.

● **Electrical Work Permit Fees for Thermostats**

When the "thermostats" category was originally added to the fee schedule all installations were typically Class 2 low voltage circuits that controlled some type of central heating unit, one thermostat per unit. The price break for "additional thermostats" was added to charge a reasonable inspection fee for large structures that needed multiple central heating units each with an associated thermostat (e.g. large houses, multifamily dwellings, strip-malls, and other commercial occupancies). New technology and innovations in heating systems and controls now provide multiple "zone temperature sensors" that give energy efficient temperature control that was not possible on the old systems.

Today it is possible to have a single family dwelling with a central hydronic heating system that has as many as ten Class 2 "zone temperature sensors" that control ten valves in a circulation system manifold. If the permit fee was calculated under WAC 296-46A-910(5)(a) as "first and additional thermostats" this system could have a fee that approaches the fee for the entire line voltage wiring of the house. Since the installation and inspection activity more closely resembles an "energy management and control system," the department will allow these (and similar) limited-energy HVAC control system permit fees to be calculated under WAC 296-46A-910(5)(b) as low-voltage systems based on square footage. Contractors installing this type of control system may choose the calculation method that gives them the lowest fee.

● **Common Area Branch Circuits**

1999 NEC 210-25 states: "Branch Circuits in dwelling units shall supply only loads within that dwelling unit or loads associated only with that dwelling unit..." In the case of two or more dwelling units sharing a common well, septic, or other system the electrical supply to these systems cannot be fed from an individual dwelling unit. Such a system must be supplied from a separate service. This reduces the likelihood of essential circuits being turned off by an owner or tenant and the water and sewer systems to all dwellings will not be effected by a single owner or tenant whose power is disconnected for any reason.

● **Code Question of the Month**

This month's Code Question: Overcurrent protection devices are not permitted to be located ____?
A) where exposed to physical damage. B) near easily ignitable materials, such as clothes closets. C) in bathrooms of dwelling units. D) all of these.

Last month's Code Question: The cross-sectional area of the conductors permitted in a seal shall not exceed ____ percent of the cross-sectional area of rigid metal conduit, unless the seal is specifically listed for a higher percentage of conductor fill. A) 25, B) 50, C) 100, D) 125. **The answer is: A) [NEC 501-5].**